States, claiming priority to provisional U.S. patent application Serial Number 60/023,732 filed on August 8, 1996. Each of the foregoing applications is commonly assigned to the assignee of the present invention and is hereby incorporated herein by reference in its entirety.

B-2 cont'd

This application discloses subject matter related to the subject matter of U.S. patent application Serial Number 09/380,545, filed on September 3, 1999 in the name of Richard E. Smalley et al., entitled "Carbon Fibers Formed From Single-Wall Carbon Nanotubes," which application is commonly assigned to the assignee of the present invention and hereby incorporated herein by reference in its entirety.--

In the Claims

Please amend the claims as follows.

Please cancel claims 1-83 without prejudice or disclaimer to the subject matter thereof.

Please add the following new claims 84-93:

84. (new) A continuous carbon fiber comprising single-wall carbon nanotubes in substantially parallel orientation.

85. (new) The fiber of claim 84 wherein a substantial portion of the single-wall carbon nanotubes have a homogeneous characteristic selected from the group consisting of lengths, diameters, helicities and combinations thereof.

86. (new) A fiber of claim 84 having a composite structure comprising:

a) a first plurality of single-wall carbon nanotubes in a first region having a first homogeneous characteristic, wherein the first homogeneous characteristic is selected from the group consisting of lengths, diameters, helicities and combinations thereof;

b) a second plurality of single-wall carbon nanotubes in a second region having a second homogeneous characteristic, wherein the second homogeneous characteristic is

selected from the group consisting of lengths, diameters, helicities and combinations thereof; and

c) wherein, the first homogeneous characteristic is different from the second homogeneous characteristic.

87. (new) A composite fiber comprising a plurality of continuous carbon fibers, wherein each of the continuous carbon fibers comprise single-wall carbon nanotubes in substantially parallel orientation.

88. (new) The composite fiber of claim 87 wherein the composite fiber is a cable-like structure.

89. (new) The composite fiber of claim 87 further comprising:

a) a central core comprising metallic single-wall carbon nanotubes; and

b) non-metallic single-wall carbon nanotubes, wherein the non-metallic single-wall carbon nanotubes surround the central core.

90. (new) The composite fiber of claim 87 wherein at least some of the single-wall carbon nanotubes in at least a portion of the composite fiber are not parallel.

91. (new) A molecular array comprising single-wall carbon nanotubes aggregated in an orientation for growing a continuous carbon fiber.

92. (new) The molecular array of claim 91 wherein the orientation of the aggregated single-wall carbon nanotubes is substantially parallel.

93. (new) The molecular array of claim 92 further comprising a segment of an initial continuous carbon fiber, wherein the initial continuous carbon fiber comprises single-wall carbon nanotubes in substantially parallel orientation.

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